

## Changes Made from Public Notice Draft to Final Version of Biosolids General Permit

1. Some changes have been made to the format of the permit. The numbering system was been changed from the use of the traditional listing of alternate numbers and letters (e.g., Part I.A.3.a.) to a decimal system (e.g., Part 1.1.3.1). This makes it easier to determine where you are in the permit and for the most part eliminated the use of “Continued on next page”. Except for the first page, the font size was generally changed from 12 point to 11 point. Starting with the second page, the page number and the permit number appear in a header. The Roman numeral part number (e.g., Part II, etc.) is not given in the top right corner of the page.
2. The use of the words “authorized” and “authorization” has been limited to “use/disposal” of sewage sludge. In many places in the permit the word “coverage” (or something similar) has replaced “authorized” or “authorization”.
3. The title of the permit on the first page has been changed from

AUTHORIZATION TO GENERATE, TREAT, AND/OR USE/DISPOSE OF SEWAGE SLUDGE BY MEANS OF LAND APPLICATION, LANDFILL, AND SURFACE DISPOSAL UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

to

GENERAL PERMIT FOR FACILITIES/OPERATIONS THAT GENERATE, TREAT, AND/OR USE/DISPOSE OF SEWAGE SLUDGE BY MEANS OF LAND APPLICATION, LANDFILL, AND SURFACE DISPOSAL UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM IN and an area was provided below the title to include the description of the area covered by the permit (e.g., Indian country within the State of Colorado and the portions of the Ute Mountain Indian Reservation located in New Mexico and in Utah.), with the description italicized.

4. Part 1.5. Changed Obtaining Authorization to Obtaining Coverage Under This Permit
5. Part 1.6.1. The following sentence as added following the 1st sentence:

Cases where an individual permit may be required include those listed at 40 CFR Part 122.28(b)(3)(i).

The following sentence was the last sentence in this Part in the draft permit and has been deleted from the final version because it was not supported by the regulations:

If a discharger fails to submit in a timely manner an individual NPDES permit application as required by the Director under this paragraph, then the applicability of this permit to the individual NPDES permittee is automatically terminated at

the end of the day specified by the Director for application submittal.

6. Part 2.2. This part was revised to allow submittal of the NOI in one of the following three formats:

Letter format;

Combination of hard (printed) copy using EPA's Biosolids Data Management System (BDMS) and in letter format; and,

Combination of letter format and electronic format.

The change was made because of the sheer volume of paper that some permittees would have had to submit under the requirements that were in the draft permit. Both those permittees and the permitting authority would have been overloaded.

7. Part 2.2.1.8. The wording used in Part 1.1 to define Category 1, Category 2 and Category 3 was added to Part 2.2.1.8. Although this is duplicative of Part 1.1, the intent is to provide clarification for the permittee.
8. Part 2.2.2.3. The wording "**Land Application of Sewage Sludge**" was added to the start of the 1st paragraph to provide clarification.
9. The draft permit required the use of a random sampling process when samples were being collected from soils and sewage sludge bodies (e.g., lagoon cells, compost piles, etc.). The final permit requires that the samples be representative and refers to Section 2.4 of the 1999 version of the EPA Region VIII Biosolids Management Handbook as an example of collecting representative samples using a random sampling process. In addition, it is mentioned that the local office of the agricultural extension service, the State Land Grant University, etc., might have guidance on collecting representative samples. This change was made at several places in the permit.
10. Part 2.2.3.5. Some changes were made to the soil sampling requirements for the NOI for land application of sewage sludge. One change was that a provision was added that for land application sites that have a length to width ratio greater than 32:1 (e.g. highway projects, reclamation of trails, etc), the applicant is to submit a proposed sampling plan. This is considered more appropriate than following the requirement of a minimum of six samples per 320 acres. Another change involved the exemption of small-scale landscaping projects of less than one acre at wastewater treatment plants from the soil sampling requirements if less than dry metric ton of sewage sludge has been applied. In response to a comment on the draft permit, sludge treatment facility grounds not colligated with the wastewater treatment plant grounds were included in this provision. The size limitation was increased from 1 acre to 5 acres and the limitation on sewage

sludge loading was changed to 1 dry metric ton per acre per year. In retrospect, a size limitation of 1 acre is considered unrealistic considering the size of most facilities. An annual loading of 1 dry metric ton per acre on a maximum of 5 acres should be insignificant environmentally if the sewage sludge meets the permit requirements.

11. Part 2.2.2.3.5. and Table NOI-6. The requirement to do deep soil monitoring for nitrates as part of the NOI was deleted. The monitoring requirements for phosphorus in soil was changed from “total phosphorus” to “available phosphorus” because it is necessary to know the amount of available phosphorus in the soil to determine if there is excessive phosphorus present. Analytical procedures for available phosphorus are specified in the footnotes of Table NOI-6.
12. Part 2.2.3.6. and Part 4.2.2. Part 4.2.2 of the draft permit required that the land application of sewage sludge be done in a manner that will not contaminate the ground water. In addition, the permittee was required to submit information to EPA indicating the State’s (or applicable Tribe’s) classification of the ground water for the site. As worded, the requirements of Part 4.2.2 was not clear. Part 2.2.3.6 was added as a new part to cover new land application site. It required, as part of the application process, the permittee to provide for each new land application site information on the ground water classification, annual high ground water level, and a plan to protect ground water quality if the annual high ground water level at any point under the site is likely to be within five feet of the ground surface.  
  
Part 4.2.2 was revised to require the same information be submitted for existing land application sites. That information is to be submitted within one year of the date of coverage under the permit.
13. Part 2.2.2.4. The wording “**Landfilling of Sewage Sludge**” was added to the start of the 1st paragraph to provide clarification.
14. Part 2.2.2.5. The wording “**Surface Disposal of Sewage Sludge**” was added to the start of the 1st paragraph to provide clarification.
15. Part 2.2.2.5.6. For purposes of clarification some minor wording changes were made.
16. Part 2.2.3. The words “**Category 3**” was added to the start of the title line. In the first paragraph the requirement that all samples, unless otherwise specified, be collected no more than “63 days (9 weeks) prior to the planned start of land application of the sewage sludge” was changed to “no more than 63 days (9 weeks) prior to submittal of the NOI. As one commenter pointed out, there can be significant delays, such as getting necessary State approval, that are outside the control of the permittee. Also, the sampling requirements were changed. Wastewater lagoon systems with a design flow of 1 million gallons or less have somewhat different requirements than the sampling requirements for

larger wastewater lagoon systems.

17. Part 2.2.3.4. The words “or an alternative method in 40 CFR Part 503.33” were deleted from the sentence and “limitations” was changed to “requirements”. The wording about alternative method in 40 CFR Part 503.33 was deleted because Part 7.1.3 was changed to allow only three options for meeting the vector attraction reduction requirements.
18. Part 2.2.3.5.2. The soil monitoring requirements for phosphorus was changed from “total phosphorus” to “available phosphorus” and the acceptable analytical procedures were specified. The deep soil monitoring requirements for nitrates was changed to surface samples (one foot depth) for nitrates. The deep soil sampling is not considered necessary for the notice of intent.
19. Part 3.2.8. The sentence following this part was changed from “The report shall be in letter format.” to “See Part 8.4 for report format requirements.”
20. Part 4.1.1. The following was added for purposes of clarification: “(See Part 4.1.1.5 for Tables 1, 2, and 3)”.
21. Parts 4.1.1.2 and 4.1.1.3. These parts were reformatted slightly, but essentially the same wording.
22. Part 4.1.1.5 - Tables 1,2, and 3 of Chemical Pollutant Limitations. A new footnote d/ was added to Table 1 and the old footnote d/ on Table 3 was changed to footnote e/. The new footnote d/ reads “Any violation of these limitations shall be reported in accordance with the requirements of Part 8.6.2 of this permit.”
23. Part 4.1.2.1. The following paragraph was added prior to the table of Class A pathogen requirements.

The Class A pathogen requirements must be met in the same treatment process as the vector attraction reduction requirements in Part 4.1.3 are met or in a treatment process prior to meeting the vector attraction reduction requirements in Part 4.1.3. This requirement does not apply when the vector attraction reduction requirements are met by raising the pH as specified in Part 4.1.3.6.

In footnote a/ the word “respectively” was added at the end of the first sentence.

The following was added to footnote b/:

(See Part 4.1.4)). (i.e., If quarterly sampling is required, a minimum of seven samples is required each quarterly event.) Samples to be analyzed for fecal coliforms and/or *Salmonella* shall be discrete, individual samples, with no

compositing of samples. Samples are to be collected at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in 40 CFR Sec. 503.10 (b), (c), (e), or (f).

The following new footnotes c/ and d/ were added to table of Class A pathogen requirements:

c/ Any violation of these limitations shall be reported in accordance with the requirements of Part 8.6.2 of this permit.

d/ The values of fecal coliforms and *Salmonella* are to be based on the MPN procedures of analyses. The membrane filter (MF) procedures of analyses are not acceptable.

24. Part 4.1.2.2. The following new footnote e/ was added to the table of Class B pathogen requirements:

e/ The values of fecal coliforms and *Salmonella* are to be based on the MPN procedures of analyses. The membrane filter (MF) procedures of analyses are not acceptable.

In footnote b/ the following was added at the end of the footnote:

(See Part 4.1.4)). (i.e., If quarterly sampling is required, a minimum of seven samples is required each quarterly event.) Samples to be analyzed for fecal coliforms shall be discrete, individual samples, with no compositing of samples.

25. Part 4.1.4 Self-Monitoring Requirements for Land Application. In the first paragraph the reference to the long-term treatment option was deleted from this part and moved to Part 4.1.4.2. “See Part 8.4 for report format requirements.” was added to the first paragraph. A second paragraph about sampling plans was added.
26. Part 4.1.4.2. Wording was added about monitoring requirements if the long-term treatment option is being used. For purposes of clarification wording was added that the seven samples for fecal coliforms and *Salmonella* are to be “discrete” samples and the samples are to be “analyzed separately” and this applies to meeting both Class A pathogen requirements and Class B pathogen requirements. A second paragraph was added stating that the MPN procedures of analyses are to be used .
27. Part 4.1.4.5. The language about a sampling plan was deleted from this part and moved to the second paragraph of Part 4.1.4.

28. Part 4.1.4.6. This part concerns soil monitoring for nitrate-nitrogen and was essentially completely rewritten. The main change was to require deep soil monitoring for nitrates only under certain circumstances. The minimum frequency of monitoring was specified at least once during the life of the permit unless prior written approval is granted by the permit issuing authority.
29. Part 4.1.4.7. The main changes to this part were requiring that the analysis be for “available” phosphorus and the acceptable methods of analysis were specified. The minimum frequency of monitoring was specified at least once during the life of the permit unless prior written approval is granted by the permit issuing authority.
30. Part 4.1.4.8. This part was reworded to specify that the analyses for metals in sewage sludge samples and soil samples are to be done using appropriate methods of those listed in Part 12 of the permit and the digestion of those samples was to be done in accordance with the requirements of footnote b/ of Part 12. Wording was added to point out that the analysis for available phosphorus shall be performed using one of the methods listed in Part 4.1.4.7.
31. Part 4.1.4.10. In the first sentence wording was added to allow monitoring that was done prior to coverage under the general permit to be considered as part of the two year monitoring requirements before a reduced frequency of monitoring could be requested.
32. Part 4.2. The first paragraph explains that if the sewage sludge meets certain criteria, the management practices included in this part do not have to be met unless notified by the permitting authority. The wording in the draft permit said “requested by the permitting authority through permit modification procedures under Part 10.15 of this permit.” The wording was changed so that the permittee must be “notified in writing” by the permitting authority. The words “requested” and “through permit modification procedures under Part 10.15 of this permit” were deleted. A permit modification might be appropriate for an individual permit, but not for a general permit.
33. Part 4.2.2. As discussed in No. 12 above, this part was changed to require the permittee to submit for each existing land application site on the ground water classification, annual high ground water level, and a plan to protect ground water quality if the annual high ground water level at any point under the site is likely to be within five feet of the ground surface. The information is to be submitted within one year of the date of coverage under the permit.
34. Part 4.2.4. The wording was rearranged to clarify that “application of sewage sludge shall be conducted in a manner that does not exceed the agronomic rate for available nitrogen of the crops grown on the site unless prior written approval is given by the permit issuing authority.”

35. Part 4.2.7. This part was changed to specify the methods of analysis to be used in determining the soil concentrations of available phosphorus. Also, wording was added to the last paragraph that “The permittee may request and EPA may approve the use of the phosphorus index as a replacement for these limits.”
36. Part 4.2.9. In the draft permit this part required the permittee to notify the Director if the planned crop was not planted during the next available growing season. After reviewing comments on the draft permit this part has been changed to require the permittee to submit certain information in the next annual report if the planned crop is not planted or there was significant crop failure.
37. Part 5.1.1. This part was changed to include the requirement that the disposal of sewage sludge by landfilling shall be done only at municipal solid waste landfill (MSWLF) units, as defined by 40 CFR Part 258.2.
38. Part 5.1.1.2.8. The following note was added for purposes of clarification:
- Note: For purposes of this permit the use of sewage sludge for “daily cover” at the landfill is considered to be disposal by means of landfilling and subject to the requirements of Part 5. In order for sewage sludge to be used as daily cover the sewage sludge must meet the vector attraction reduction requirements that are achieved by means of treatment. If that requirement is not met, the sewage sludge cannot be used as daily cover and must be covered daily by soil or other material as specified in part 5.1.1.2.8 of the permit. If the permittee suspects that the daily cover requirements of 40 CFR Part 258.21 are not being met at the landfill and the sewage sludge being taken to the landfill does not meet one of the vector attraction reduction requirements of Part 5.1.1.2 through treatment, then the permittee is obligated to immediately stop taking the sewage sludge to that landfill until the problem is corrected.
39. Part 5.1.2. The following was added “(See Part 8.4 for report format requirements.)”
40. Part 5.1.2.2. In the first sentence of the second paragraph, minor wording change by inserting “these pollutants in” before “sewage sludge” and “the” before “sewage sludge” was deleted.
41. Part 6.1.1.2. Footnote d/ was added to the table of limitations.
42. Part 6.1.2. The following was added to footnote b/:
- (See Part 6.1.4.4)). (i.e., If quarterly sampling is required, a minimum of seven samples is required each quarterly event.) Samples to be analyzed for fecal coliforms shall be discrete, individual samples, with no compositing of samples.

The values of fecal coliforms are to be based on the MPN procedures of analyses.  
The membrane filter (MF) procedures of analyses are not acceptable.

43. Part 6.1.4. The following was added “(See Part 8.4 for report format requirements.)”
44. Part 6.1.4.6. Various wording changes so that (1) continuous monitoring for methane gas in all structures with the surface disposal site is required if cover is placed on an active sludge unit and (2) clarified the requirements of a plan that was to be submitted for other monitoring for methane.
45. 6.1.4.8. Added the following: “(See footnote b/ of Part 12, Approved Methods for the Analysis of Sewage Sludge (40 CFR Part 503), for optional methods.)” and changed “method 3050” to “method SW-3050B”.
46. Part 6.1.4.9. In the first sentence wording was added to allow monitoring that was done prior to coverage under the general permit to be considered as part of the two year monitoring requirements before a reduced frequency of monitoring could be requested.
47. Part 6.3.2.2. Changed the requirements from submitting a description of the system that will be used to monitor for methane to submitting a plan for monitoring for methane and specified some items that had to be covered in the plan.
48. Added Part 6.3.4 that prohibits permanent storage of sewage sludge.
49. Part 7.1.1 Chemical Pollutant Limitations for Limited Land Application. In the table of limitations, changed the N/A to 75 for total molybdenum.
50. Part 7.1.2.1. The draft permit stated that the pathogen requirements could be met by either meeting the numerical limitations on fecal coliforms (Part 7.1.2.1.1) or by “another method approved in writing by the permit issuing authority (Part 7.1.2.1.2). The final permit has three options for meeting the pathogen requirements. Part 7.1.2.1.1 is the same with a note added about the samples must be discrete, with no compositing of samples, and the MPN procedures of analyses must be used. Part 7.1.2.1.2 was changed to “The sewage sludge has been treated in one of the Processes to Significantly Reduce Pathogens described in Appendix B of 40 CFR Part 503; or” A new Part 7.1.2.1.3 was added. It states “The sewage sludge has been treated in a process that is equivalent to a Process to Significantly Reduce Pathogens, as determined by the permit issuing authority.”
51. Part 7.1.3.3. Change from “Another method approved in writing by the permit issuing authority.” to “The pH of the sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali, shall remain at 12 or higher for two hours and then at 11.5 or higher for an additional 22 hours.” The provision in the draft



permit did not meet the requirements of 40 CFR Part 503.

- 52. Part 7.1.4 Self-Monitoring Requirements for Limited Land Application. In the draft permit this part stated “Unless otherwise specified by the permit issuing authority, self-monitoring of the sewage sludge is not required during the land application of the sewage sludge.” This has been changed to require annual monitoring of sewage sludge related activities until the land application is completed. More frequent monitoring is required, as appropriate. There is a provision that during the first year of the actual application of sewage sludge to the land, the permittee may use data submitted with the NOI, as appropriate. If the land application has been completed, the date of completion shall be provided.
- 53. Part 7.4.3. The last sentence was deleted because it is not reasonable to require that records be kept on-site.
- 54. Part 8.1. The last part of the sentence, “ and immediately prior to use/disposal.” was deleted.
- 55. Part 8.4. In the first paragraph “and 7.1” was inserted following “6.1” in the third sentence.

The second sentence in the second paragraph was changed from “Until further notice the permittee may select the report format provided that it is understandable and is on letter size (8.5" x 11") paper.” to “Unless otherwise approved by the permit issuing authority, the permittee shall submit the report on letter size (8.5" x 11") paper.

In the last sentence the internet address was changed to <http://www.epa.gov/region08/water/wastewater/biohome/bdms/bdms.html>.

- 56. Part 8.6.1. In the first sentence “sites, storage sites,” was inserted following “transfer” and “, etc.” was inserted following “land application sites”.
- 57. Part 8.6.2. was essentially completely rewritten so that the reporting requirements in this part are based on violations that are considered potential risks to public health or the environment.
- 58. Part 8.6.4. This part was deleted because Region 8 wants a written report on all incidents that were reported under the 24-hour reporting requirements.
- 59. Part 8.8.4. The words “surface disposal,” were inserted following the two occurrences of “landfill,”.
- 60. Part 9.1. The last sentence was deleted because it also appears in Part 10.2, which is the

proper location.

61. Part 9.4. This part was reworded so as to be the same as 40 CFR § 122.41(d).
62. Part 9.6, Upset Conditions, was deleted because it applies to unintentional and temporary noncompliance with technology based effluent limitations because of factors beyond the reasonable control of the permittee. The general permit does not authorize any discharges.
63. Part 10.9 Availability of Reports. Reference to the reports being available for inspection at the offices of the State (or applicable Tribe) was been deleted. Also, in the last sentence reference to applicable State (or applicable Tribe) was deleted.
64. Part 10.15 (Reopener Provision) The wording was changed to more accurately paraphrase 40 CFR 122.44(c)(4).
65. Definitions
  - a. Contamination of an aquifer. 40 CFR 141.11 was changed to 141.62(b).
  - b. The following definitions were added:
    - (1) Facility;
    - (2) Landfilling of sewage sludge;
    - (3) Municipal solid waste landfill unit (MSWLF unit);
    - (4) Phosphorus index;
    - (5) Sewage sludge body;
    - (6) Surface disposal of sewage sludge;
    - (7) Treat or treatment of sewage sludge; and,
    - (8) Upset
  - c. The definition of “grit and screenings” was changed by deleting “and shall be disposed of according to 40 CFR Part 258 and adding “(Note: The disposal of grit and screenings are not regulated under this permit. They should be disposed of in accordance with applicable State (or Tribal, if applicable) and local regulations.)”
  - d. The definitions of *PFRP* and *PSRP* were changed by replacing reference to 40 CFR Part 257 with Appendix B (Part B) of 40 CFR Part 503 and Appendix B (Part A) of 40 CFR Part 503 and some minor wording changes.
  - e. The definition of “pollutant limit” was revised to the wording given at 40 CFR Part 503.9(u).
  - f. The definition of “sewage sludge” was revised by replacing the last sentence, “These must be disposed of in accordance with 40 CFR Part 258.”, with “(Note:

The disposal of grit and screenings are not regulated under this permit. They should be disposed of in accordance with applicable State (or Tribal, if applicable) and local regulations.)”

66. The table of approved methods for the analysis of sewage sludge was updated to list more recent methods of analyses and adding a few methods of analysis. The parameters “Helminth Ova”, “Enteric Viruses”, “TCLP”, and “Paint Filter Test” were added to the table. Footnotes a/ and b/ were added to the table.
67. Parts 4.4.5, 5.2.3, and 6.4.3. The term “life of this permit” was changed to “at least 5 years” so as to agree with the requirements of 40 CFR Part 503.